

January 10 - January 16, 2002

Mission Systems

Investigation continued this week into the source of a network anomaly that has periodically affected the ability of the EOS Operations Center (EOC) to send commands and receive telemetry from the Terra spacecraft. On January 17, 2002, while new cables were being installed and connected to the facility's network routers, it was noted that the backup router had a bad processor card. The processor card has been replaced and the network continues to be monitored for further anomalies. This successfully completed the first of a two-part modification.

The EOSDIS Core System Flight Operations Team participated in a dry run of the Aqua spacecraft compatibility interface test #4 (SCIF-4) on January 14. The dry run successfully exercised AIRS B-side operations and clock correlation procedures; other portions of the dry run were impacted by configuration issues at the spacecraft manufacturer's facility. The "run for the record" execution of SCIF-4 is currently scheduled for February 1, 2002.

The EOS Data and Operations System (EDOS) has successfully completed processing a recent spate of reprocessing orders for the ASTER Science Team. This brings the EDOS reprocessing backlog back to zero hours.

Terra

The Terra spacecraft is operating in nominal mode. All instruments are currently functioning well in nominal science mode.

The schedule for Drag Make-up Maneuvers required modification based upon the decision to postpone the Inclination Adjust Burn, as the thrust component of this burn would have contributed to drag make-up. The already scheduled long-duration TDRSS passes planned for support of the Inclination Adjust Burn were used to execute a 14-second Drag Make-up Maneuver at 10:39 EST on the morning of Wednesday, January 16. Drag Make-up Maneuvers are much shorter and less complex than Inclination Burns, as no attitude changes or significant instrument reconfigurations are required. Therefore, the maneuver was deemed safe and not susceptible to major impact by the sporadic network events. As a safety precaution, Terra Flight Operations Team personnel were stationed in the backup EOC to take over operational responsibility in the event of any problems. There were no network issues during the maneuver.

Planning continued to initiate a series of 2-day tests using Terra to simulate the Aqua science data load on the Polar Ground Network. The first test is scheduled for February 4, 2002, and 2-day tests will continue at roughly 16-day intervals (i.e., the Terra ground track repeat cycle).

Several MDA2BITE trips (High Gain Antenna Motor Drive Assembly opto-coupler Single Event Upsets) occurred during this reporting period, with no resultant non-recoverable data loss.

Plans

- Initiation of re-planning for the next Terra Inclination Adjust Maneuver
 - Commercial Ground Site Validation will continue once the DataLynx antenna is declared operational (expected February 1, 2002)
 - MODIS calibration roll maneuver (early February)
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